

METHOD FOR DETECTION OF DEFECTS IN ANISOTROPIC MATERIALS

ABSTRACT

[0053] Disclosed herein is a method for imaging anisotropic media comprising selecting multiple points within the anisotropic media, which is to be imaged; determining an acoustic path between each selected point in the anisotropic media and a receiver position on the surface of the anisotropic media; calculating an acoustic wave velocity at all necessary points; determining an acoustic path length based on each selected point in the anisotropic media and the receiver position; determining a time delay for each acoustic wave between each image point and the receiver position on the surface of the anisotropic media; calculating a sum for each point selected based on the appropriate acoustic wave velocities and the acoustic path lengths ; and generating an image of the anisotropic media using the coherent sums generated for each said image point selected.